

**PEAK TO AVERAGE POWER RATIO REDUCTION IN COMMUNICATION
SYSTEMS**

ABSTRACT OF THE DISCLOSURE

A system and method for reducing peak to average power ratio (PAR) in
5 single and multi-carrier transmitters while accounting for the effect of the transmit filters
without significantly affecting a requisite transmission Power Spectral Density (PSD) mask.
To this end, in a multicarrier communication system, a DSL transmitter is provided that
transmits a multicarrier symbol having a controlled peak-to-average power ratio (PAR) and
which is a function of a plurality of information signals. The transmitter has a power reducer
10 that reduces the PAR of the multicarrier symbol by modifying a selected information signal
of a plurality of information signals, the modified signal including an information component,
a peak reduction component, and a transmission channel response component.

PA 3111290 v1KRACNI